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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/961,171	09/24/2001	Hiromi Yuasa	214298US2RD	7210
22850	7590	11/30/2004	EXAMINER	
OBLOON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT, P.C. 1940 DUKE STREET ALEXANDRIA, VA 22314			EVANS, JEFFERSON A	
			ART UNIT	PAPER NUMBER
			2652	

DATE MAILED: 11/30/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No.	Applicant(s)
	09/961,171	YUASA ET AL.
	Examiner	Art Unit
	Jefferson Evans	2652

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).

Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on 02 July 2004.
- 2a) This action is FINAL.                            2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) 8-15 is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_\_ is/are allowed.
- 6) Claim(s) 1-7 and 16-20 is/are rejected.
- 7) Claim(s) \_\_\_\_\_ is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All    b) Some \* c) None of:
  1. Certified copies of the priority documents have been received.
  2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

1) <input type="checkbox"/> Notice of References Cited (PTO-892)	4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date: _____
2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)	5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)
3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date: _____	6) <input type="checkbox"/> Other: _____

Claims 1 to 20 are pending.

Claims 8 to 15 have been withdrawn from consideration.

***Claim Rejections - 35 USC § 112***

1. Claims 1-7 and 16-20 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

A...Claim 1 – lines 19 to 22, the phrase “a film area of the magnetoresistance effect element” is indefinite because the magnetoresistance effect element is a multilayer element, with the non-magnetic intermediate layer of the magnetoresistive element having a different film area than that of the fixed or free layers of the magnetoresistive element, thus it is unclear what the film area of the magnetoresistance element would be since its constituent layers can have different film areas.

B...Claim 1 – lines 19 to 22 set forth that the magnetoresistance effect element has a single conductive part with a film area smaller of the magnetoresistance effect element. This is indefinite for the reasons already set forth but also because the claim language does not establish what constituent layer or layers of the magnetoresistance effect element includes the single conductive part and this contributes to the difficulty in establishing the metes and bounds of the claim language in question.

C...Claim 2 – lines 13 to 16 and claim 5 – lines 13 to 16 are indefinite are indefinite for reasons similar to those set forth in subparagraphs 1A and 1B in that

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the film area of the magnetoresistance effect element is indefinite as the magnetoresistance effect element has multiple constituent layers and because it is unclear which layer or layers of the magnetoresistance effect element include the single conductive part.

***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1, 16, and 19 are rejected under 35 U.S.C. 102(e) as being anticipated by Sakakima et al (U.S. 6,077,618). Sakakima discloses (note figures 5a, 5b, 6, and 7) a free layer 1, a fixed layer 3, and a nonmagnetic insulating layer 2 formed of a nonconductive portion 2 and a single conductive portion C. Figure 7 shows that the free layer and fixed layers extend away from the region in which they overlap and that the insulating layer 2 is present only where the free and fixed layers overlapped and thus the insulating layer 2 has a sectional area smaller than either the area of the free layer or the area of the fixed layer. The structure of Sakakima can be utilized as a read head.

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***Allowable Subject Matter***

4. Claims 2-7, 17, 18, and 20 would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph set forth in this office action.

***Conclusion***

5. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

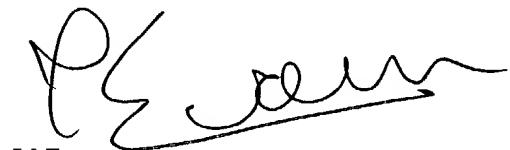
6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jefferson Evans whose telephone number is 703-308-1610. The examiner can normally be reached on Monday to Friday, 9:00am to 5:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hoa Nguyen can be reached on 703-305-9687. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see [http://pair-](http://pair)

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contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



JAE

November 22, 2004

Jefferson Evans  
Primary Examiner  
Art Unit 2652

**JEFFERSON EVANS**  
**PRIMARY EXAMINER**